

***Metacamopiella euzeti* gen. n., sp. n., and *Hargicola oligoplites* (Hargis, 1957) (Monogenea: Allodiscocotylidae) from Brazilian Fishes**

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ABSTRACT: *Metacamopiella euzeti* gen. n., sp. n., is described from *Trachinotus carolinus* (Carangidae) from the littoral zone off the shore of Rio de Janeiro, Brazil. The new genus most closely resembles *Metacamopia* Lebedev, 1972, differing mainly by having vaginal apertures ventral and atriolateral, in the presence of a small row of papillae-like structures, instead of sclerotized structures inside the vaginal sacks, and in the structure of the mediobasal sclerite of clamps. *Hargicola oligoplites* (Hargis, 1957) Lebedev, 1970, is reported from *Epinephelus guaza* (Serranidae).

KEY WORDS: Monogenea, Allodiscocotylidae, Camopiinae, *Metacamopiella euzeti*, *Hargicola oligoplites*, fish, *Trachinotus carolinus*, *Epinephelus guaza*, southern Atlantic Ocean, Brazil.

A new genus and species of Camopiinae, representing the first occurrence of this subfamily in the southern Atlantic ocean, are described from Brazilian fishes. *Hargicola oligoplites* (Hargis, 1957) Lebedev, 1970, is reported for the first time from Brazil and is redescribed.

Materials and Methods

The fishes from Guanabara Bay (23°48'S, 43°10'W), Brazil, were obtained from fishermen and free markets. The worms collected from gills were fixed in 5% formalin without pressure or with slight coverslip pressure. Some specimens were mounted unstained in Gray and Wess medium (Humason, 1979) for the study of sclerotized structures; others were washed in 70% ethanol and directly stained in alcoholic chlorhydric carmine (Langeron, 1949), dehydrated through an alcohol series, cleared in beechwood creosote, and mounted in Canada balsam.

Figures were made with the aid of a drawing tube. Measurements were made with the use of a calibrated filar micrometer and are given in micrometers with the mean in parentheses followed by the number of specimens measured when more than 2.

Holotype and voucher specimens were deposited in the Helminthological Collections of the "Instituto Oswaldo Cruz" (CHIOC), Rio de Janeiro, Brazil, and in the Parasitological Collection of the Institute of Biology and Pedology, Russian Academy of Sciences (PC-IB-PRAS), Vladivostok, Russia.

Results

***Metacamopiella* gen. n.**

Gastrocotylinae; Allodiscocotylidae; Camopiinae. Body elongated with expanded areas in

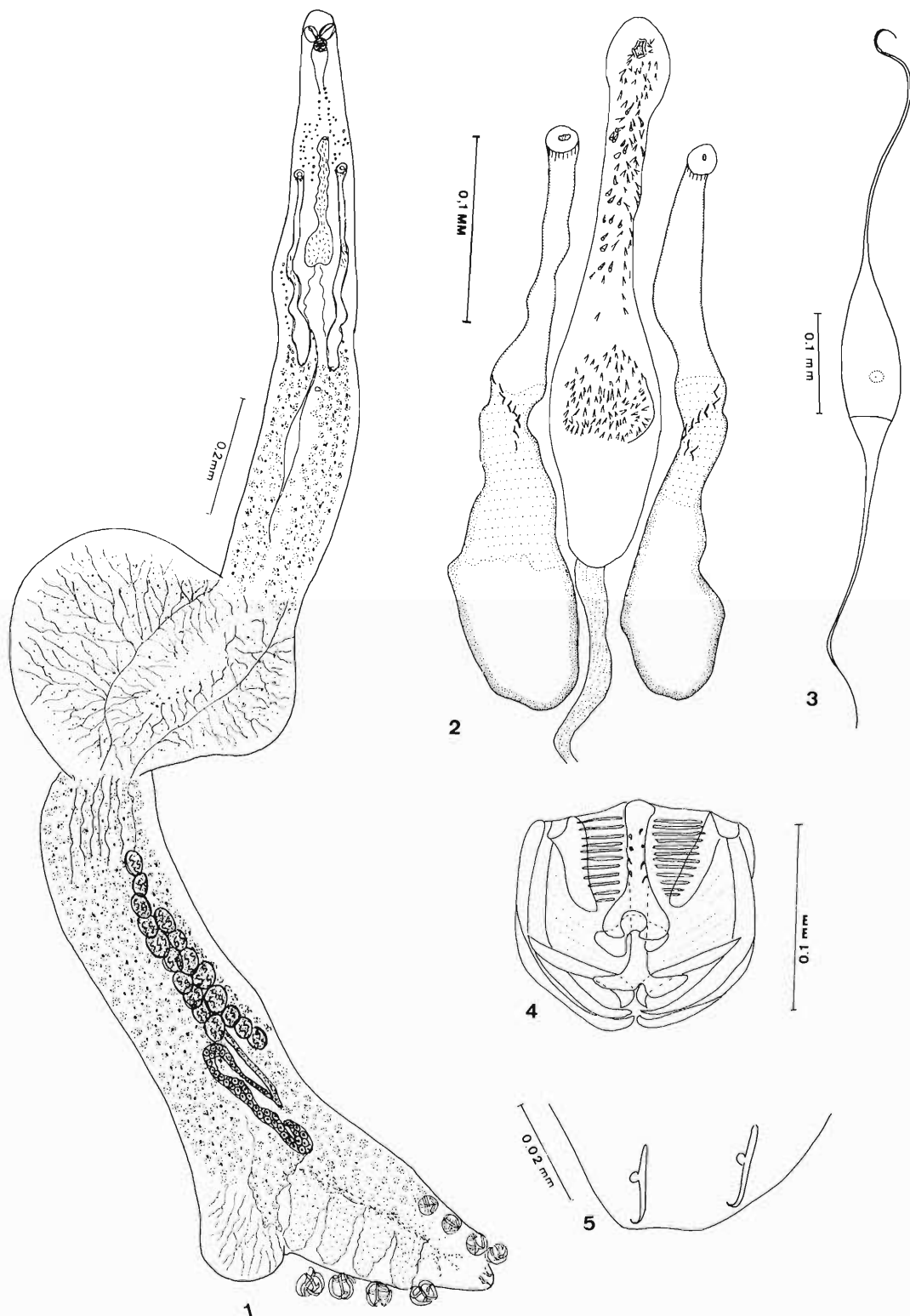
the middle and in the posterior part. Haptor asymmetrical, with 1–2 pairs of anchors and 2 rows of 2–4 clamps on each side, with enlarged U- or V-shaped mediobasal sclerite, with wings. Testes preovarian; cirrus with multiple spines. Two muscular vaginal pores open laterally, behind genital pore. Vaginal ducts enlarged modified into vaginal seminal receptacle sacks, interior lacking sclerotized structures, 1 small row of papillae-like thickenings inside present or absent.

TYPE SPECIES: *Metacamopiella euzeti* sp. n.

***Metacamopiella euzeti* sp. n.**

(Figs. 1–5)

DESCRIPTION (based on 11 specimens): Body 3,157–5,835 (4,270) 8 long with bilateral asymmetrical expansions in middle of body and another unilateral located immediately anterior to haptor, on the same side as the larger clamps and the wider median expansion. In immature specimens, the median expansions can be less developed. Width at testes level is 271–476 (381) 11; width at median expansion is 550–1,121 (814) 11 and width at posterior expansion 300–880 (563) 10. Haptor asymmetrical with 2–4 pedunculated clamps on each row, slightly dissimilar in size. Mediobasal sclerite with distal part U- or V-shaped, wings present. Larger clamps located over muscular areas of haptor measure 65–120 (82) 11 long by 63–126 (85) 11 wide; smaller



Figures 1–5. *Metacamopiella euzeti* gen. n., sp. n. 1. Holotype (ventral view). 2. Vaginal ducts with papillae-like thickenings in middle region and spined cirrus. 3. Egg. 4. Clamp showing mediobasal sclerite with distal part U-shaped and wings. 5. Detail of anchors.

clamps located in the distal half of haptor length and measure 51–96 (67) by 46–96 (69) 9. One pair of anchors, 36–45 (39) 11, is present on terminal lappet. A second very small pair was observed in a juvenile stage.

Buccal suckers oval 37–60 (44) 11 long by 36–46 (39) 10 wide; pharynx small, rounded to oval 36–48 (43) by 36–46 (39) 10. Esophagus long without diverticula, bifurcating anterior to genital atrium; intestinal crura ramified.

Testes ovoid, 14–22 (17) 8 arranged in 2 longitudinal rows in posterior third of body, mainly preovarian and the last few paraovarian. Cirrus cylindrical, 308–476 (398) 8 long, dilated posteriorly, covered with spines of 3 different sizes and with pad-like roots. Anterior spines 12–21 long, median spines 24–42 long, posterior spines 9–10 long. Genital pore median, unarmed, 193–480 (354) 11 from anterior end.

Ovary tubular, post-testicular, looped, in the median third of hindbody. Two ventral vaginal pores, slightly posterior to genital atrium 267–597 (457) 11 from anterior end; vaginal ducts tubular, 423–810 (597) 10 long, sometimes with 1 row of papillae-like thickenings in middle region. Mehlis gland not observed. Vitellaria follicular, co-extensive with the crura and their branches, extending from level of seminal receptacle posterior into haptor. Transverse vitelline ducts short and narrow, uniting to form the median vitelline duct, which runs forward ventrally and opens at the common genital pore. Egg fusiform, 170–225 (199) long by 46–70 (60) 5 wide, with anterior filament 240–270 (251) 3 long, posterior filament 207–255 (227) 3 long.

TYPE HOST: *Trachinotus carolinus* (Linnaeus, 1766) Carangidae.

SITE: Gills.

LOCALITY: "Baía de Guanabara, Rio de Janeiro," Brazil.

MATERIAL COLLECTED AND STUDIED: One, 3, 5, and 7 specimens from 4 *T. carolinus*.

MATERIAL DEPOSITED: CHIOC: Holotype n. 33.059 and voucher specimens n. 33.060a–c, 33.062a–f. PC-IBPRAS: Paratype 301/SA-23374a.

ETYMOLOGY: The new species is named in honor of Prof. Louis Euzet, France, for his contributions to helminthology.

Hargicola oligoplites (Hargis, 1957)

Lebedev, 1970

(Figs. 6, 7)

DESCRIPTION (based on 1 specimen): Body 3,076 long with posterior end abruptly curved to

1 side, 2 expansions present: 1 bilateral asymmetrical in middle of body and another unilateral expansion immediately anterior to haptor. Body width at bilateral expansion level is 733 and 366 just anterior to it. Cuticle thick, strongly plicate.

Haptor asymmetrical with 4 pairs of thick clamps, gastrocotylid type, dissimilar in size. Large clamps measure 114–120 by 96–112 (117 by 106) 4 and the small 89 by 70. One pair of anchors 37 and 39 long at terminal end of haptor.

In the specimen studied, the anterior extremity of body was extremely constricted, not allowing the observation of the buccal suckers and pharynx. Intestinal crura ramified.

Testes 35, ovoid, pre- and paraovarian, in 2 longitudinal rows in posterior third of body. Cirrus cylindrical, 390 long armed with numerous small spines. Vas deferens long and sinuous. Genital pore midventral, unarmed.

Ovary tubular, posteriormost portion lobed, located in middle region of posterior third of body. Two ventrolateral vaginal pores situated slightly posterior to genital atrium at about 210 from anterior end. Vaginal ducts, 390 long, are strongly muscular, anterior and posterior portions expanded forming muscular pouches connected by an isthmus, without sclerotized structures or papillae. Vitellaria follicular, densely massed, co-extensive with the crura. Egg fusiform 180 long by 44 wide with polar filaments.

HOST: *Epinephelus guaza* (L. 1758), Serranidae, new host record.

SITE: Gills.

LOCALITY: "Baía de Guanabara, Rio de Janeiro," Brazil.

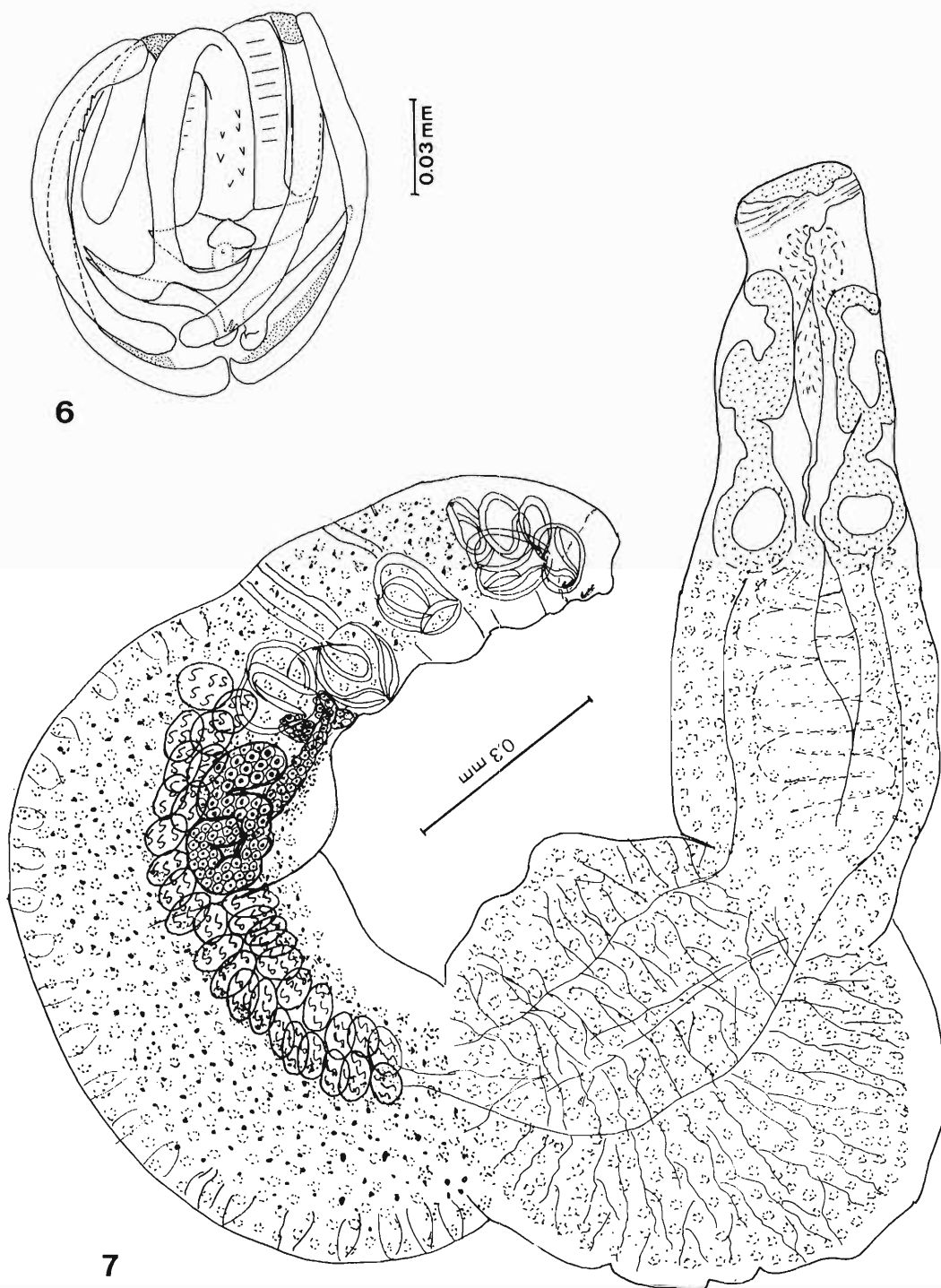
MATERIAL COLLECTED AND STUDIED: One specimen.

MATERIAL DEPOSITED: CHIOC: 33.063.

Discussion

Lebedev (1972, 1984, 1986) published revisions of Gastrocotylinae, including the genus *Metacamopia* Lebedev, 1972, and the species *Hargicola oligoplites*.

Metacamopia with the 2 species *M. indica* (Unnithan, 1963) Lebedev, 1972, and *M. chorinemi* (Yamaguti, 1953) Lebedev, 1984, is characterized by having 4 pairs of clamps (pedunculated on 1 side of the haptor and without peduncles on the other) and 1 pair of anchors, testes preovarian in the posterior half of the body, and dorsolateral vaginae paired and vaginal ducts modified into vaginal seminal receptacles with sclerotized structures (situated in semicircle rows) inside.



Figures 6, 7. *Hargicola oligoplites*. 6. Clamp. 7. Total body view.

Metacamopiella gen. n. differs from *Metacamopia* by having vaginal apertures ventral and atriolateral a small row of papillae-like structures inside the vaginal sacks, lacking sclerotized spines inside vaginae, by having *Camopia*-like-shaped distal part of mediobasal sclerite of clamp, and by host and locality. It differs from the other Camopiinae genera, *Camopia* Lebedev, 1970, *Hargicola* Lebedev, 1970, and *Vallisia* Perugia and Parona, 1890 (see Lebedev, 1970, 1986), mainly in the body shape and vaginae structure. The new genus and species represent the first occurrence of Camopiinae in the southern Atlantic Ocean.

Hargicola oligoplites, the only species of the genus, described by Hargis (1957) and redescribed by Bravo-Hollis (1989) from *Oligoplites saurus* (Bloch and Schneider), is now redescribed from the southern Atlantic Ocean from a new host, with a more extensive range of measurements in number and size of clamps, size of anchors, and number of testes.

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